



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/578,923

05/09/2006

Tomokazu Muraguchi

10517/330

3859

23838 7590 12/30/2008

KENYON & KENYON LLP  
1500 K STREET N.W.  
SUITE 700  
WASHINGTON, DC 20005

EXAMINER

NGUYEN, TU MINH

ART UNIT

PAPER NUMBER

3748

MAIL DATE

DELIVERY MODE

12/30/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,923	<b>Applicant(s)</b> MURAGUCHI ET AL.	
	<b>Examiner</b> TU M. NGUYEN	<b>Art Unit</b> 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 is/are allowed.
- 6) ☒ Claim(s) 1,3,7 and 8 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. An Applicant's Amendment filed on September 29, 2008 has been entered. Claim 2 has been canceled; claims 1 and 8 have been amended; and claim 9 has been added. Overall, claims 1 and 3-9 are pending in this application.

Applicant's argument that Morinaga et al. fail to disclose a controller that reduces the amount of air introduced into the engine to the predetermined amount in a stepwise manner, is persuasive; therefore, a new non-final rejection is set forth below.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**3. Claims 1, 3, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morinaga et al. (U.S. Patent 6,830,043) in view of Gottberg (U.S. Patent 5,809,773).**

Re claims 1 and 8, as shown in Figures , Morinaga discloses a control apparatus and a control method for an internal combustion engine provided with a secondary air supply apparatus (Fig. 1, Nos. 30-38) that supplies secondary air to a portion upstream of an exchange gas control device (Fig. 1, No. 23) in an exhaust system, the apparatus comprising:

Art Unit: 3748

- a detector that detects failure in the secondary air supply apparatus (see Fig. 5; line 21 of column 12 to line 9 of column 13); and

- a controller that limits an amount of air when failure in the secondary air supply apparatus is detected by the detector (see Figs. 6 and 7; lines 10-37 of column 13).

Morinaga et al., however, fail to disclose that the controller reduces the amount of air introduced into the engine to the predetermined amount in a stepwise manner.

As shown in Figure 1, Gottberg discloses a method and a device for catalyst emission control, comprises a start-up catalyst (4), a main catalyst (5), a secondary air system (13, 15) to supply a secondary air to the start-up catalyst. As claimed in claims 1-5, Gottberg teaches that when starting the engine and in order to heat up the catalyst, a secondary air rate is injected at a predetermined level and the rate is gradually reduced in a stepwise manner to prevent sudden changes in the catalysts' temperatures (see line 61 of column 3 to line 28 of column 4). It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the teaching by Gottberg in the apparatus and method of Morinaga et al., since the use thereof would have been routinely utilized by those with ordinary skill in the art to prevent sudden temperature change in an emission control device.

Re claim 3, in the modified control apparatus of Morinaga et al., the controller reduces the amount of the air introduced into the internal combustion engine to the predetermined amount at a predetermined change rate (Fig. 7).

Re claim 7, in the modified control apparatus of Morinaga et al., the controller controls an opening amount of a throttle valve provided in an intake pipe for the internal combustion

Art Unit: 3748

engine so that the amount of the air introduced into the internal combustion engine is limited to the predetermined amount (see Figure 9; lines 45-63 of column 14).

***Allowable Subject Matter***

4. Claim 9 is allowed.

Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Prior Art**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of one patent: Hirooka (U.S. Patent 6,912,845) further discloses a state of the art.

Art Unit: 3748

*Communication*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tu Nguyen whose telephone number is (571) 272-4862.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas E. Denion, can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tu M. Nguyen/

TMN

Tu M. Nguyen

December 24, 2008

Primary Examiner

Art Unit 3748